From Satellites ...

NASA has been observing the ocean from space for more than 30 years beginning with Seasat launched in 1978. This legacy continues today with a new generation of NASA missions. Among them are ocean surface topography measurements from the Jason series of altimeters and ocean wind observations from QuikSCAT. Recent NASA technologies also make possible critical new measurements from space including gravity from the Gravity Recovery and Climate Experiment (GRACE) and, soon, sea surface salinity from Aquarius.

... to Climate Estimation

The satellite data records and higher level products derived from them provide vital information for understanding climate change. The Physical Oceanography Distributed Active Archive Center (PO.DAAC) manages NASA's physical oceanography data sets and facilitates access to the diverse products. The Group for High Resolution Sea Surface Temperature (GHRSST) is developing a new generation of sea surface temperature data products for operational and research applications. The Consortium for Estimating the Circulation and Climate of the Ocean (ECCO) produces quantitative depictions of the time-evolving global ocean state by combining observations with general circulation models.

Determining the ocean's role in weather and climate is an integral part of NASA's mission to develop an understanding of the entire Earth system. NASA satellite observations are enabling scientists to study the ocean in new and exciting ways.

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NASA Physical Oceanography

From Satellites to Climate Estimation

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OSTM/JASON2 — Sea Level

SeaWinds — Ocean Winds

GRACE — Gravity

AQUARIUS — Salinity

Physical Oceanography DAAC — PO.DAAC

GHRSST — GHRSST

ECCO

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